

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
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## PCT

WRITTEN OPINION

(PCT Rule 66)

*ATY RESP W.O.: Oct 17, 2004*

Date of Mailing  
(day/month/year) **17 AUG 2004**

Applicant's or agent's file reference

13652.1 WOU1 ✓

REPLY DUE

within 2 months/days from  
the above date of mailing

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US03/40646

19 December 2003 (19.12.2003)

19 December 2002 (19.12.2002)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): F26B 3/00 and US Cl.: 34/340

Applicant

KARGES-FAULCONBRIDGE, INC.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

**When?** See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.  
For an informal communication with the examiner, see Rule 66.6

**If no reply is filed,** the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 19 April 2005 (19.04.2005)

Name and mailing address of the IPEA/US

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*Joseph W. Drodge*  
**JOSEPH DRODGE**  
PRIMARY EXAMINER

# WRITTEN OPINION

International application No.

PCT/US03/40646

## I. Basis of the opinion

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☒ the description:
  - pages 1-31, as originally filed
  - pages NONE, filed with the demand
  - pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the claims:
  - pages 32-36, as originally filed
  - pages NONE, as amended (together with any statement) under Article 19
  - pages NONE, filed with the demand
  - pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the drawings:
  - pages 1-11, as originally filed
  - pages NONE, filed with the demand
  - pages NONE, filed with the letter of \_\_\_\_\_.
- ☐ the sequence listing part of the description:
  - pages NONE, as originally filed
  - pages NONE, filed with the demand
  - pages NONE, filed with the letter of \_\_\_\_\_.

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

### 5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

# WRITTEN OPINION

International application No.  
PCT/US03/40646

## V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. STATEMENT

Novelty (N)	Claims <u>8 AND 11-19</u>	YES
	Claims <u>1-7,9,10 AND 20</u>	NO
Inventive Step (IS)	Claims <u>8 AND 11-19</u>	YES
	Claims <u>1-7,9,10 AND 20</u>	NO
Industrial Applicability (IA)	Claims <u>1-20</u>	YES
	Claims <u>NONE</u>	NO

### 2. CITATIONS AND EXPLANATIONS

Claims 1-7,9,10 and 20 have novelty under PCT Article 33(2) as being anticipated by Tiede et al patent 6,438,867.

Tiede et al disclose a process for drying solids (particles) initially wet with water comprising providing a feed stream (moving bed/column 3, lines 28-29, etc.) having the particles, contaminants [claim 20] (see column 3, lines 30-33) and water in the interstitial spaces (pores) between the particles (column 3, lines 45-47 and 59-61, etc., and then displacing first with a 1<sup>st</sup> solvent and then with a 2<sup>nd</sup> solvent prior to drying (column 3, lines 19-25 and column 7, lines 23-30) and then drying by application with heat as in claims 2 and 20 (see column 7, lines 45-48).

Regarding claims 3 and 4, see discussions of critical temperatures, inherently referring to heats of vaporization (column 4, lines 46-48 and column 4, line 67-column 5, line 5).

Regarding claims 6 and 7, see preferred solvents including ethanol or other alcohols (column 4, lines 28-37 and column 5, lines 12-14).

Regarding claims 9 and 10, see suggestion of using ether as solvent (column 4, lines 61-63).

Claims 8,11,12 and 15-19 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a method of drying solids using a 1<sup>st</sup> solvent that is displaced with a 2<sup>nd</sup> solvent that is n-propyl bromide. Tiede et al teach away from such use, in column 4, lines 64-65 stating that "halogenated hydrocarbons are avoided".

Claims 13 and 14 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a method of drying solids using a 1<sup>st</sup> solvent that is an alcohol displaced with a 2<sup>nd</sup> solvent that is ether. Tiede et al teach away from such combination of steps, in teaching that certain alcohols are more preferred (more suitable) than a broad range of other solvents including ethers (column 4, lines 61-64).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry. Claims 1-20 have usefulness in the industrial arts of preparing micro or nanoparticles for the pharmaceutical or agricultural industries.

----- NEW CITATIONS -----

WRITTEN OPINION

International application No.  
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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

**TIME LIMIT:**

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.